Name:

p1106: Solve by factoring (v0)

1. Solve the equation
$$x^2 - 6x - 27 = 0$$
$$(x+3)(x-9) = 0$$
$$x = 9$$
$$x = -3$$

2. Solve the equation
$$x^2 - 14x + 49 = 0$$
$$(x-7)(x-7) = 0$$
$$x = 7$$
$$x = 7$$

3. Solve the equation
$$3x^2 + 3x + 17 \;=\; 2x^2 - 5x + 1$$
$$x^2 + 8x + 16 = 0$$
$$(x+4)(x+4) = 0$$
$$x = -4$$
$$x = -4$$

4. Solve the equation
$$3x^2 - x + 5 \;=\; 2x^2 - 8x - 7$$
$$x^2 + 7x + 12 = 0$$
$$(x+3)(x+4) = 0$$
$$x = -4$$
$$x = -3$$

5. Solve the equation
$$2x^2 + x - 10 \;=\; x^2 + 2x - 4$$
$$x^2 - x - 6 = 0$$
$$(x-3)(x+2) = 0$$
$$x = -2$$
$$x = 3$$

6. Solve the equation

$$11x^2 - 74x + 48 = 0$$

$$(11x - 8)(x - 6) = 0$$
$$x = 6$$
$$x = \frac{8}{11}$$

7. Solve the equation

$$2x^2 + 25x + 63 = 0$$

$$(2x + 7)(x + 9) = 0$$
$$x = -9$$
$$x = \frac{-7}{2}$$

8. Solve the equation

$$6x^2 + 7x - 10 = x^2 - 2x + 8$$

$$5x^2 + 9x - 18 = 0$$
$$(5x - 6)(x + 3) = 0$$
$$x = -3$$
$$x = \frac{6}{5}$$

9. Solve the equation

$$7x^2 + 39x + 14 = 2x^2 - 2x + 6$$

$$5x^2 + 41x + 8 = 0$$
$$(5x + 1)(x + 8) = 0$$
$$x = -8$$
$$x = \frac{-1}{5}$$

10. Solve the equation

$$10x^2 + 68x - 1 = 3x^2 + 6x + 8$$

$$7x^2 + 62x - 9 = 0$$
$$(7x - 1)(x + 9) = 0$$
$$x = -9$$
$$x = \frac{1}{7}$$